

**CALIFORNIA RESOURCES AGENCY
COASTAL IMPACT ASSISTANCE PROGRAM
PROJECT PROPOSAL FORM**

County: Santa Barbara County
Department: Planning and Development
Prepared by: Steve Mason
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Title of project: GIS Coastal Zone Enhancements
Project location: Countywide
Total cost: \$106,000
Funding request: \$106,000

MISSION

To ensure comprehensive and coordinated management, conservation and enhancement of California's ocean and coastal resources for their intrinsic value and for the benefit of current and future generations.

GOALS: Four goals have been established by the State of California to achieve this mission.

Goal 1: Stewardship. To assess, conserve, and manage California's ocean and coastal resources and the ecosystem that supports those resources.

Goal 2: Economic Sustainability. To encourage environmentally sound, sustainable, and economically beneficial ocean and coastal resource development activities.

Goal 3: Research, Education and Technology. To advance research, educational programs, and technology developments to meet future needs and uses of coastal and ocean resources.

Goal 4: Jurisdiction and Ownership. To maximize California's interests in coastal watersheds, State Tidelands, the Territorial Sea, and the Exclusive Economic Zone.

Project Summary:

Planning and Development with enhance our geographic information system (GIS) and other databases in the following ways:

Digitize Santa Barbara County Coastal Plan overlays that delineate environmentally sensitive habitat areas, flood zones and view corridors. Currently this data is available in paper form only. Staff and the public will be able to access these important features through our GIS.

Link our current GIS system with the Shoreline Inventory system. The data is currently not electronically available to staff or the public. This inventory is part of a program that consists of biannual monitoring of 24 rocky intertidal sites in San Luis Obispo, Santa Barbara, Ventura County. This information is used as a baseline assessment of the coastline rocky intertidal biological resources in the event of an oil spill. Making this data available electronically will enable more comprehensive analysis of biological resources in the County's intertidal area.

Digitize and rectify Coastal Commission Appeals and Permit Jurisdiction boundary areas. Having these boundaries available in our GIS will allow analysis of coastal development trends.

Resource, development and habitat mapping associated with the Proposed Devereux/Ellwood Regional Open Space Plan.

Incorporate land use and permit information into our GIS system to enhance the analysis of urban runoff and ocean water quality.

The department will acquire 3d modeling software for coastal buff retreat analysis and modeling. Several areas in the County bluff retreat threatens structures.

Purchase and install GIS software to allow permitting and planning staff to access the department's GIS resources, including the items listed above.

Consistency with Mission and Goals:

The project is consistent with the mission by providing sound information to make land use decisions and increase the analysis of coastal resources and trends. More specifically, the project increases the information available to staff and decision-makers for the analysis of land use development applications in the coastal zone. Much of the data in our GIS system is available to the public for educational and research purposes. The department collaborates closely and shares GIS data with the University of California at Santa Barbara on research in the county's coastal region. This project specifically addresses Goals 1, 2 and 3.

Preliminary Project Budget:

Line Item	Estimated Expense
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Review and compilation existing mapped data	\$11,000
GIS data conversion, programming	72,000
Software, 3d Modeling, ArcView	23,000
Total Project	\$106,000

Anticipated Project Schedule:

We anticipate this project to one and one half years, commencing September 2001 and ending February of 2003.

**CALIFORNIA RESOURCES AGENCY
COASTAL IMPACT ASSISTANCE PROGRAM
PROJECT PROPOSAL FORM**

County: San Diego County
Department: Department of Planning and Land Use
Prepared by: Robert E. Asher
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Title of project: Geographic Information System (GIS) Support for Stormwater Permit Compliance
Project location: Various/San Diego County
Total cost: \$296,107
Funding request: \$296,107

MISSION

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Project Summary:

The San Diego region is composed of 18 cities, the County of San Diego as well as state, federal, and tribal lands. Recent events such as the increased number of beach closures, the size and number of fines imposed upon the local jurisdictions by the San Diego Regional Water Quality Control Board (SDRWQCB), and the adoption (February, 2001) of the Municipal Storm Water Permit (Order No. 2001-01, NPDES NO. CAS0108758) have raised interest among the jurisdictions for improving regional water quality. The newly adopted Municipal Storm Water Permit (MSWP) and Federal Clean Water Act Section 404(b) place substantial requirements on jurisdictional agencies to mobilize and implement a myriad of programs, technologies, and resources aimed at addressing runoff issues to be completed by February 22, 2002. Also, scientists in the environmental think tank, Resources for the Future, have concluded that the new EPA water quality regulations (Clean Water Act 303 (d)) are likely to spur new improvements in water quality, but progress will be tempered by serious scientific and technical challenges. These scientists conclude that there is a need for more and better data collection regarding sources of pollution. In addition, the County of San Diego Board of Supervisors initiated Project Clean Water to provide a framework for regional commitment to protect and improve water quality. Through coordinated assessment and planning, a Regional Clean Water Strategic Plan and an Action Plan for implementation will be developed to guide solutions for clean water. Project Clean Water is an investment in San Diego's future. It serves to inspire and benefit water quality while encouraging efforts to be mutually supportive and complimentary of each other, rather than duplicative and competitive.

The Stormwater Permit requires the development of several different databases in support of Permit implementation. GIS/Remote Sensing Technology can be used to highlight the areas of significant water quality impacts resulting from urban development. The scope of the project involves applying this technology to developing these useful databases. Projects of particular land use types also have greater potential to significantly impact receiving waters due to the presence of typically large amounts of pollutants on site or an increased potential for pollutants to move off site from construction and/or municipal, industrial, commercial and residential land uses. The GIS products developed through this project are intended to address the following requirements to be implemented in multiple watersheds/regions that involve coordination between numerous authorities and meet the conditions of the Permit for all Co-permittees:

Permit Section F.2.d. Source Identification (Construction) requires each Co-permittee to develop and update, prior to the rainy season, a watershed based inventory of all construction sites within its jurisdiction regardless of site size or ownership. This requirement is applicable to all construction sites regardless of whether the construction site is subject to the California statewide General NPDES Permit for Storm Water Discharges Associated With Construction Activities (hereinafter General Construction Permit), or other individual NPDES permit. The use of an automated database system, such as Geographical Information System (GIS) is highly recommended.

Permit Section F.3.a.(2) Source Identification (Municipal) requires each Co-permittee to develop, and update annually, a watershed based inventory of the name, address (if applicable), and description of all municipal land use areas and activities which generate pollutants. The use of an automated database system, such as Geographical Information System (GIS) is highly recommended.

Permit Section F.3.b.(2) Source Identification (Industrial) requires each Co-permittee to develop and update annually a watershed-based inventory of all industrial sites within its jurisdiction regardless of site ownership. This requirement is applicable to all industrial sites regardless of whether the industrial site is subject the California statewide General NPDES Permit for Storm Water Discharges Associated With Industrial Activities, Except Construction (hereinafter General Industrial Permit) or other individual NPDES permit. The inventory shall include the following minimum information for each industrial site: name; address; and a narrative description including SIC codes which best reflects the principal products or services provided by each facility. The use of an automated database system, such as Geographical Information System (GIS) is highly recommended.

Permit Section F.3.c(2) Source Identification (Commercial) requires each Co-permittee to develop and update annually an inventory of a number of high priority threat to water quality commercial sites/sources. The use of an automated database system, such as Geographical Information System (GIS) is highly recommended.

Permit Section F.3.d.(2) Threat to Water Quality Prioritization (Residential) requires each co-permittee to identify high priority residential areas and activities. This activity also lends itself to Geographical Information System (GIS).

Section J. Watershed Urban Runoff Management Program requires each Co-permittee to collaborate with all other Co-permittees discharging urban runoff into the same watershed to develop and implement a Watershed Urban Runoff Management Program (Watershed URMP) for the respective watershed. Each Watershed URMP shall include an accurate map of the watershed (preferably in Geographical Information System [GIS] format) that identifies all receiving waters (including the Pacific Ocean); all Clean Water Act section 303(d) impaired receiving waters (including the Pacific Ocean); land uses; MS4s, major highways; jurisdictional boundaries; and inventoried commercial, construction, industrial, municipal sites, and residential areas.

Consistency with Mission and Goals:

Mission: ***“To ensure comprehensive and coordinated management, conservation and enhancement of California’s ocean and coastal resources for their intrinsic value and for the benefit and current generations.”***

The State of California has encouraged local jurisdictions to take a watershed-based approach when addressing water quality issues. Indeed, applicants for competitive Proposition 13 funding received strong support from the regional water quality control board for development of watershed management framework plans that addressed water quality issues downstream from the source to the ocean. In addition to the watershed efforts, several jurisdictions and departments within the County of San Diego are involved in developing a plan for complying with the conditions of the Permit including, the Board of Supervisors Chief Administrative Office, Department of Environmental Health, Department of Planning and Land Use, Department of Public Works, County Counsel and Department of General Services. The GIS

function would serve as a comprehensive central bank of data information collected by each of the County departments as well as other local municipalities and Co-permittees for use in coordinating the various activities required to develop and implement watershed management plans as well as to comply with the Stormwater Permit.

Goal 1: Stewardship. To assess, conserve and manage California's ocean and coastal resources and the ecosystem that supports those resources.

GIS capabilities can be utilized to assess and locate dischargers, map land uses of potential pollutant sources, problem areas, identify all needed program enhancements by area, map the inventory of County facilities and activities subject to the Permit, map water corridors, natural systems, traffic-related pollutants, post development run-off areas. Enforcement actions can be enhanced by mapping enforcement histories for various locations, tracking areas issued grading permits and mapping construction projects, and keeping an inventory of ongoing planning, implementation, enforcement and inspection activities.

Goal 2: Economic Sustainability. To encourage environmentally sound, sustainable and economically beneficial ocean and coastal resource development activities.

By mapping the existing uses, sensitive environmental resources, recreation areas and potential wetland enhancement areas, GIS can alleviate the cost and time spent on creating a viable plan for the watershed, determine where threats to water quality are most likely to occur and enable the County to take a proactive rather than reactive approach to maintaining an environmentally sound and sustainable program. Simply creating GIS data is not sufficient to long-term sustainability, rather, the data must be maintained regularly.

Goal 3: Research, Education and Technology. To advance research, educational programs and technology developments to meet future needs and uses of coastal and ocean resources.

Through the use of GIS and Remote Sensing (satellite or airborne systems) information collected can be utilized for modeling physical and cultural phenomena. Research institutions, such as San Diego State University and University of California San Diego Super Computer Center have proven to be leaders in research and development. Their products can help the region achieve a coordinated and comprehensive data resource.

Goal 4: Jurisdiction and Ownership: To maximize California's interests in coastal watersheds, State Tidelands, the Territorial Sea and the Exclusive Economic Zone.

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Office, Department of Environmental Health, Department of Planning and Land Use, Department of Public Works, County Counsel and Department of General Services. The GIS function would serve as a comprehensive central bank of data information collected by each of the County departments as well as other local jurisdictions and Co-permittees for use in coordinating the various activities required to develop and implement watershed management plans as well as to comply with the Stormwater Permit and Clean Water Act.

Budget:

Item	Cost (FY 2001)
1) Identify data needs, 2) determine data available, 3) populate the data structure, 4) develop data updating mechanism, and 5) distribute data to other co-permittees.	\$127,920
Equipment/Data	\$168,187
Total	\$296,107

Project Schedule:

<u>Task</u>	<u>Date</u>
Identify data needs	07/01/01 -- 08/01/01
Determine data that is available	08/01/01 -- 10/01/01
Develop data structure	10/01/01 -- 11/01/01
Populate data structure	11/01/01 -- 02/01/02
Develop data update mechanism	11/01/01 -- 07/01/02
Distribute data to all co-permittees	02/01/02 -- 02/22/02